

III. REMARKS

Claims 1-14 are pending in this application. By this amendment, claims 1, 5, 7, 11 and 14 have been amended. Applicants do not acquiesce in the correctness of the rejections and reserve the right to present specific arguments regarding any rejected claims not specifically addressed. Further, Applicants reserve the right to pursue the full scope of the subject matter of the original claims in a subsequent patent application that claims priority to the instant application. Reconsideration in view of the following remarks is respectfully requested.

In the Office Action, claims 1-14 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Haddon (U.S. Patent No. 6,622,155), hereafter "Haddon" in view of Kanamori (U.S. Patent No. 5,754,854), hereafter "Kanamori." Applicants assert that the cited art does not teach each and every feature of the claimed invention. Specifically, with respect to independent claims 1, 5, 7, 11 and 14, Applicants submit that Haddon fails to teach or suggest allocating resource objects to users in a programming language environment. The thread synchronizer in Haddon ties a local thread that is called by a local parent thread into one logical thread, allowing each thread in the local thread access to a resource. Col. 5, lines 19-22. One application of the thread synchronizer in Haddon is in the context of a monitor, which includes a queue, a lock, and the data to be shared. Col. 8, lines 28-30. However, Haddon's specific monitor environment in which its thread synchronizer functions is not a programming language environment. In contrast, the present invention includes "...allocating resource objects to users in a programming language environment." Claim 5. As such, the resource objects of the present invention are allocated to users in a programming language environment, not in the specialized environment of a monitor as in Haddon. Thus, the allocation of resource objects to users in a programming language

environment as included in the present invention is not equivalent to the thread synchronizer in the context of a monitor in Haddon. Kanamori does not remedy this deficiency. Accordingly, Applicants respectfully request that the Office withdraw its rejection.

With further respect to independent claims 1, 5, 7, 11 and 14, Applicants respectfully submit that the cited art also fails to teach or suggest a resource pool for storing a plurality of individual available resource objects. The Haddon monitor, which includes a queue, is specific to one data resource, and thus, as stated by the Office, does not explicitly teach more than one resource object in the resource pool. Col. 8, lines 28-30. To cure this deficiency, the Office attempts to rely on the method and system for virtually creating a group of parallel resources from a single shared resource in Kanamori. Col. 4, lines 15-16. However, the virtual parallel resources of Kanamori are formed from a single resource and, as such, are not multiple individual resources. The present invention, in contrast, includes "...a resource pool for storing a plurality of individual available resource objects." Claim 5. The resource objects stored in the resource pool of the current invention are individual available resource objects, not virtual parallel resources formed from a single resource as in Kanamori. For the above reasons, the virtual parallel resources of Kanamori are not equivalent to the plurality of individual available resource objects as claimed in the present invention. Furthermore, the combination of the monitor of Haddon with the virtual parallel resources of Kanamori is not equivalent to the resource pool for storing a plurality of individual available resource objects as claimed in the present invention. Accordingly, Applicants request that the rejection be withdrawn.

With still further respect to independent claims 1, 5, 7, 11 and 14, Applicants respectfully submit that the cited art also fails to teach or suggest removing the acquiring user from the

resource queue if the acquiring user does not acquire at least one of the resource objects within a predefined time. Haddon discloses a patent (U.S. Pat., No. 5,341,491), which Haddon claims as prior art, that includes a lock queue, wherein lock requests only enter the lock queue if they are refused access to a shared resource a predetermined number of a times. Col. 2, lines 63-67. However, this Haddon reference does not remove requests from the lock queue, but rather places them into the lock queue when the condition is met. Furthermore, the condition that must be met in the Haddon reference is based on the number of times that access to the resource is attempted and refused, not the amount of time that has elapsed. In contrast, the present invention includes "...removing the acquiring user from the resource queue if the acquiring user does not acquire at least one of the resource objects within a predefined time." Claim 5. Unlike the reference in Haddon, in which the number of times a resource is refused access is used as a condition for action, the removal of the acquiring user from the resource as claimed in the present invention occurs if the acquiring user does not acquire at least one of the resource objects within a predefined time. Furthermore, the present invention, *inter alia*, removes the acquiring user from the resource queue rather than adding it the lock queue in the Haddon reference. For the above reasons, the removal of the acquiring user from the resource queue if the acquiring user does not acquire at least one of the resource objects within a predefined time as claimed in the present invention is not equivalent to the Haddon reference, which adds an item to the lock queue if it is refused access to a shared resource a predetermined number of times. Kanamori does not cure this deficiency. Accordingly, Applicants respectfully request that the Office's rejection be withdrawn.

With yet still further respect to independent claims 1, 5, 7, 11 and 14, Applicants respectfully submit that the cited art also fails to teach or suggest to constrain users with regard to a plurality of individual available resource objects such that only one user may execute either the release resource system or the acquire resource method at any one time. As stated above, Haddon illustrates the use of its thread synchronizer in the context of a monitor, which includes a queue, a lock, and the data to be shared. Col. 8, lines 28-30. The queue in the Haddon monitor, as in a normal queue, forces one thread to wait in a queue until a prior thread has completed its use of the single resource. However, as Haddon does not teach or suggest a plurality of individual available resources, its monitor does not teach or suggest constraining multiple users from acquiring or releasing these multiple resources simultaneously. In contrast, the present invention includes "...to constrain users with regard to a plurality of individual available resource objects such that only one user may execute either the release resource system or the acquire resource method at any one time." Claim 7. As such, no two users as included in the present invention may acquire or release any of the plurality of individual resources simultaneously. Thus the constraint as included in the present invention is not equivalent to the normal queue functions of Haddon. Kanamori does not cure this deficiency. Accordingly, Applicants request that the Office withdraw its rejection.

With regard to the Office's other arguments regarding dependent claims, Applicants herein incorporate the arguments presented above with respect to independent claims listed above. In addition, Applicants submit that all dependant claims are allowable based on their own distinct features. However, for brevity, Applicants will forego addressing each of these

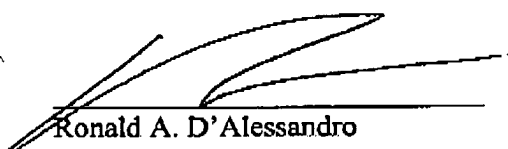
rejections individually, but reserve the right to do so should it become necessary. Accordingly, Applicants respectfully request that the Office withdraw its rejection.

IV. CONCLUSION

In light of the above, Applicants respectfully submit that all claims are in condition for allowance. Should the Examiner require anything further to place the application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the number listed below.

Respectfully submitted,

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Ronald A. D'Alessandro
Reg. No.: 42,456

Hoffman, Warnick & D'Alessandro LLC
Three E-Comm Square
Albany, New York 12207
(518) 449-0044
(518) 449-0047 (fax)